

another curved thick line just beyond middle; fainter lines on each side of it; the grey area is more broadly darkened before the yellow margin, and distinctly crenulate. Under-side duller.

Huancabamba, N.E. Peru, 5000-6000 feet, January 1906; one ♂.

*Amaurinia fulva*, sp. n.

♂ ♀. 25 mm.—Face dark fulvous; fillet snow-white; head, thorax, and abdomen greyish fulvous. Fore wing bright pale fulvous, the basal area and costal region suffused with dull rufous brown; the lines dark brown, outcurved and wavy, slightly bent below costa and below middle, at nearly even distances apart on costa, but the postmedian approaching median below middle; a dark brown linear cell-spot just beyond antemedian line; terminal line dark brown; fringe dull yellow. Hind wing with two brown lines, the inner very faintly curved, nearly straight, the outer at or slightly beyond middle of wing; angled or strongly bent on  $M^1$ ; terminal area with three or four very faint darker wavy lines, which are still more obscure on fore wing. Underside much paler, especially on hind wing; the lines reddish grey and wavy, the subterminal more distinct.

San Antonio, W. Colombia, 5800 feet, December 1907 (*M. G. Palmer*), the type ♂; also two other ♂♂, December, and one ♀, November; all from the same locality.

The termen of fore wing is slightly gibbous between  $R^3$  and  $M^1$ , oblique below, and faintly concave above; of hind wing bluntly angled. Allied to *A. bifilata*, Warr. Nov. Zool. ii. p. 103 (*Cambogia*?). Some specimens are slightly darker and more purplish-tinged than the type.

[To be continued.]

BIBLIOGRAPHICAL NOTICE.

*A Natural History of the British Butterflies, their World-wide Variation and Geographical Distribution. A Text-book for Students and Collectors.* By J. W. TUTT, F.E.S. Vol. III. 8vo. London, 1908-09. Pp. viii, 410; pls. 53. Price £1.

WE have received another instalment of Mr. Tutt's enormously elaborate work on British Lepidoptera, being the tenth of the whole series. The amount of matter it contains is far more than

the appearance of the outside of the book might indicate, for it is so closely printed that the average number of words on a page seems to be somewhere about 650.

The first part of the present volume, comprising 40 pages, is devoted to Family Habits in Butterfly Larvæ,—the Chrysophanids, the Urbicolids, and the Papilionids, and coordinates a great amount of scattered information relative to exotic as well as to British species. The second part of this volume, comprising 358 pages, is devoted to five species only of our British “Blues”—*Everes argiades*, *Cupido minimus*, *Plebeius argus* (*ægon*), *Cyaniris semiargus*, and *Agriades thetis* (*bellaragus*). The remainder of the volume is taken up by errata, index, &c.

As an illustration of the thoroughness of Mr. Tutt's work, we may analyze the fifty pages devoted to *Cupido minimus*, Fuessly (*alsus* Fabr.), the Bedford Blue. First we have nearly a page of synonymy of the genus *Cupido*, a translation of Schrank's analysis of his subdivisions, and a discussion on the real type. Then follows a page of synonymy of the species; the original description; paragraphs on Sexual Dimorphism, Variation, followed by full descriptions and critical remarks on 12 named varieties; among them being *lorquinii* of Herrich-Schäffer, which Mr. Tutt is inclined to regard as probably a distinct species. Next we have sections on Egg-laying, Ovum, Habits of Larva, Variation of Larva, Food-plants, Parasites, Puparium, and Pupa. Finally, we have sections dealing with Times of Appearance throughout the range of the species, Habits, Habitats, British Localities, and Distribution.

The structure and development of the larva is treated of in very great detail, and illustrated by 9 plates, several containing two sections; another plate being devoted to beautiful photographic figures of the butterfly at rest in various positions, likewise of the larvæ and the under surface of the butterfly, and a pupa-skin of *Everes argiades*.

The other species dealt with in this volume are discussed in an equally elaborate manner, including *Everes argiades*, just mentioned, which Mr. Tutt regards as only doubtfully British.

Although the bulk of the illustrations deal with the earlier stages of the insects, several are devoted to perfect insects, especially plate 4, exhibiting varieties of *Everes argiades*, *Cupido minimus*, and *Plebeius argus*; plate 5, showing *Everes argiades*, with varieties and allied species; and plate 42, which, with the exception of a few figures devoted to *Cyaniris semiargus*, is entirely devoted to a wonderful series of aberrations of *Agriades thetis*.

We hope that Mr. Tutt may live to bring out many more volumes of a book which is quite as important to the general student of Lepidoptera as to the entomologist who confines his attention exclusively to British species.

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